

U.S. Patent Application Serial No. 09/926,093  
Response dated October 3, 2003  
Reply to Office Action of July 3, 2003

**REMARKS**

Claims 16-24 are pending in this case.

Claims 1-15 have been canceled without prejudice and rewritten as new claims 16-24 to more clearly define the invention. No new matter has been added.

In view of new claims 16-24 and the remarks set forth below, further and favorable consideration is respectfully requested.

***I. In the Office Action, the Examiner has rejected claim 8 as being indefinite under 35 USC §112, and as being in improper process form under 35 USC §101.***

The Examiner states that claim 8 is indefinite because it does not set forth any process steps, and is therefore improper.

Claim 8 has been canceled without prejudice. Claim 8 has not been rewritten. Accordingly, this rejection is believed to be moot. Thus, the Examiner is respectfully requested to withdraw this rejection.

***II. At pages 2 and 3 of the Office Action, the Examiner has rejected claims 1 and 4 as being anticipated by US 6,155,306 to Katsukura et al.***

The Examiner states that **Katsukura** discloses a bullet proof woven fabric comprising multi-filament yarns.

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**Katsukura** discloses a woven fabric including non-twisted multi-filament yarns having a flattened cross-sectional shape, where the filaments making up the multi-filament have a count of less than 10 deniers, and the multi-filament has a count of from 50 to 1600 deniers.

In view of the following, this rejection is believed to be overcome.

New claim 16 corresponds to canceled claims 1, 5, and 6, and is directed to a mohair-like pile fabric. Claim 16 requires a pile formed by knitting the multi-filament and requires that the multi-filament include acrylic based synthetic long fibers.

**Katsukura** does not disclose a multi-filament including acrylic based synthetic long fibers, as required by the present claims. Further, **Katsukura** discloses a woven fabric, not a mohair-like pile fabric including a pile formed by knitting multi-filaments, as presently required.

Accordingly, **Katsukura** does not teach each and every element of the claimed invention as required for anticipation under 35USC §102. Thus, the Examiner is respectfully requested to withdraw this rejection.

**III. At page 4 of the Office Action, the Examiner has rejected claims 1-4 as being obvious over JP 63-190083 to Kuraray Co. Ltd.**

The Examiner states that **Kuraray** discloses a multi-filament polyester yarn having 10-25 dpf and 0.5-3 crimps per inch. The fiber has a flat ratio of 3-10, and is coated with a silicone resin and heat treated at 140-160°C.

The Examiner notes that the English abstract is silent as to total yarn denier and the amount of twist. The Examiner states that it would have been obvious to one of ordinary skill in the art to select the yarn denier and a twist frequency within the ranges claimed, because the values are known and the selection of each would be a matter of discovering an optimum value of result effective variables.

In view of the following, this rejection is believed to be overcome.

Present claim 16 is directed to "A mohair-like pile fabric comprising a pile formed by knitting a multi-filament for mohair-like pile fabric, said multi-filament comprising acrylic-based synthetic long fibers of..." The fiber of claim 16 has a twist frequency, is an acrylic-based synthetic long fiber, and has a straight form which is similar to natural mohair.

**Kuraray** does not disclose a "multi-filament" as presently claimed. Rather, **Kuraray** discloses a mixed spinning fiber, which is a short, crimped, fiber. The present claims requires that the multi-filament have a twist frequency. Twist frequency, is not the same as "crimp."

**Kuraray** does not teach or suggest an acrylic-based synthetic long fiber multi-filament, as required by the present claims. Rather, **Kuraray** discloses a polyester fiber. **Kuraray** does not teach or suggest a fabric comprising a pile formed by knitting the multi-filament, as required by the present claims.

**Kuraray** discloses that the fiber is useful for blending with wool or acrylic fiber for use in underwear and sweaters. It is known that combed (carded) wools, including for example, cut cotton, have crimps (short fiber, staple fiber etc.) and are used as mixed spinning fibers for blending.

The present "multi-filament" is an assemblage of two or more mono-filaments having a continuous length and is classified in the art as "long fibers" (page 6, lines 19-22 of the present specification). Accordingly, the "multi-filament" of the present invention is completely different from the mixed spinning fiber of **Kuraray**.

**Kuraray** does not suggest a fabric including a pile formed by knitting a multi-filament, where the multi-filament includes an acrylic-based synthetic long fiber multi-filament having a twist frequency, as required by the present claims.

**Kuraray** does not provide any motivation to modify his disclosed fiber to produce the claimed fabric including a pile, because **Kuraray** teaches that his fiber is useful for blending with fibers that are used to produce articles including underwear and sweaters.

In view of the new claims and the remarks set forth above, it is submitted that nothing in **Kuraray** renders the claimed invention obvious within the meaning of 35 U.S.C. §103. Accordingly, the Examiner is respectfully requested to withdraw this rejection.

***IV At pages 5 and 6 of the Office Action, the Examiner has rejected claims 5-14 as being obvious over JP 63-190083 to Kuraray Co. Ltd., in view of Gabrielski et al. (claim 5), and U.S. 3,930,106, to Mihara et al. and U.S. 4,316,924, to Minemura et al. (claims 5-14).***

Regarding claim 5, the Examiner states that it would have been obvious to the skilled artisan to substitute the acrylic-based fiber of **Gabrielski** for the polyester filaments of **Kuraray**, because it is within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use.

Regarding claims 5-9, the Examiner states that it would have been obvious to substitute the acrylic based fibers of **Mihara** or **Minemura** for the polyester fibers of **Kuraray**, and to produce a pile fabric as taught by **Mihara** or **Minemura**, because it is within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use.

With regard to claim 10, the Examiner states that it would be obvious to employ a double stitch knit because selection of the type of knit stitch would be within the level of ordinary skill in the art.

As to claims 11-14, the Examiner states that the claimed values are known in the art and the selection of each would be a matter of discovering an optimum value of result effective variables.

In view of the following, this rejection is believed to be overcome.

- A. **Gabrielski** is directed to smooth or slightly crimped mohair-type, single fibers having a non-circular cross-section and having grooves with a coarsely serrated edge present in the longitudinal direction of the hair.
- B. **Mihara** is directed to an animal hair-like synthetic single fiber which has one or more narrow parts in the middle of the fiber and one or both ends of the fiber are sharpened.
- C. **Minemura** is directed to a synthetic fur having thick single fibers where each fiber includes a cross-section having at least one constricted part.

**Kuraray** discloses mixed spinning fibers comprising short crimped fibers. None of **Gabrielski**, **Mihara** or **Minemura** disclose multi-filaments, let alone multi-filaments having the claimed twist frequency.

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Example 3 of **Mihara** (pointed out by the Examiner) discloses sliver knitting, and Example 4 discloses using roving thread. **Minemura** discloses at col. 1, lines 51-57, that a fabric can be formed, for example, by flocking a woven, knitted or non-woven fabric with the above-mentioned two types of synthetic fibers, knitting the fibers into a pile fabric and, subjecting the fibers to cutting the stitching threads to form two pile fabrics. However, **Minemura** does not disclose knitting a multi-filament. Examples 1-9 of **Minemura**, produce a pile by sliver knitting using a sliver comprising two kinds of staples.

Accordingly, none of the above-mentioned references disclose a pile fabric including a pile, produced by knitting multi-filaments having a twist frequency, as presently required. Therefore, even if a pile fabric is knitted using the single fibers disclosed by the noted secondary references, the present mohair-like pile fabric would not be obtained.

None of Gabrielski, Mihara nor Minemura, taken alone or together, cure the deficiencies of Kuraray. Kuraray does not teach or suggest a multi-filament as required by the present claims, nor a multi-filament having the claimed twist frequency. None of the noted secondary references cure the deficiencies of Kuraray because they also do not teach or suggest a multi-filament, nor a multi-filament having the claimed twist frequency, as required by the present claims.

In view of the aforementioned amendments and accompanying remarks, it is submitted that the claims are in condition for allowance, which action, at an early date, is respectfully requested.

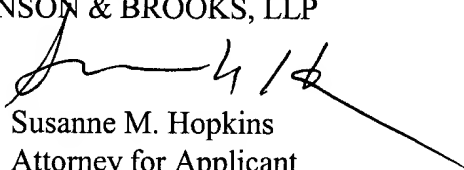
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If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact Applicants undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

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